

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
28 December 2000 (28.12.2000)

PCT

(10) International Publication Number
WO 00/78907 A1

- (51) International Patent Classification⁷: **C11D 11/00**, 17/06
- (21) International Application Number: **PCT/US00/16914**
- (22) International Filing Date: **20 June 2000 (20.06.2000)**
- (25) Filing Language: **English**
- (26) Publication Language: **English**
- (30) Priority Data:
60/140,079 **21 June 1999 (21.06.1999)** **US**
- (71) Applicant (for all designated States except US): **THE PROCTER & GAMBLE COMPANY [US/US]**; One Procter & Gamble Plaza, Cincinnati, OH 45202 (US).
- (72) Inventors; and
- (75) Inventors/Applicants (for US only): **BEIMESCH, Wayne, Edward [US/US]**; 711 Red Bud Drive, Covington, KY 41015 (US). **CAPECI, Scott, William [US/US]**; 3285 Citation Lane, North Bend, OH 45052 (US). **SPONTAK, G., Gregory [US/US]**; 622 West Hanna Avenue, Loveland, OH 45140 (US). **WASSERMAN, Matthew, Israel [US/US]**; 1348 Cryer Avenue, Cincinnati, OH 45208 (US). **WELCH, Robert, Gary [US/US]**; 1187 Madeleine Circle, Cincinnati, OH 45231 (US).
- (74) Agents: **REED, T., David et al.**; The Procter & Gamble Company, 5299 Spring Grove Avenue, Cincinnati, OH 45217-1087 (US).
- (81) Designated States (*national*): AE, AL, AM, AT, AT (utility model), AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, CZ (utility model), DE, DE (utility model), DK, DK (utility model), DM, EE, EE (utility model), ES, FI, FI (utility model), GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SK (utility model), SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW.
- (84) Designated States (*regional*): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG).
- Published:**
— *With international search report.*
- For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.*

(54) Title: PROCESSES FOR MAKING GRANULAR DETERGENT IN A FLUIDIZED BED GRANULATOR HAVING RECYCLING OF IMPROPERLY SIZED PARTICLES

(57) Abstract: A process for the production of granular detergent compositions is provided wherein fluid bed granulation is employed in conjunction with selected recycle of oversized particles to control the uniformity of the resulting detergent composition. The process comprises feeding starting ingredients into a fluid bed granulator to at least partially granulate the feed material while employing the fluid bed to control undersized particle generation and sizing in conjunction with recycle to control oversized particles.

Pub. No. WO 00/78907 A1

WO 00/78907 A1